

**ABSTRACT**

An integrated device (100, 200, 300, 400, 600, 1000) for harvesting a biological fluid from the tissue and analysis of the biological fluid. The device comprises a layer  
5 having a porating element disposed thereon to form at least one opening in the tissue. Biological fluid is harvested from the opening of the tissue and placed in contact with a sensor incorporated in the integrated device. The sensor is responsive to the biological fluid to provide an indication of a characteristic of the biological fluid, such as the concentration of an analyte in interstitial fluid. The porating element may comprise one  
10 or more heat conducting elements that are either optically or electrically heated, or one or more mechanical porating elements.